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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,095	06/25/2003	Matthias Krull	2000DE441/D	4206

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EXAMINER	
TOOMER, CEPHIA D	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/606,095	KRULL ET AL.	
	Examiner	Art Unit	
	Cephia D. Toomer	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7 and 10-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7 and 10-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No 09/993590

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 7 and 10-17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of U.S. Patent No. 6,610,111 in view of Weers (US 6,129,772). US Patent 6,610,111 fails to claim the additive comprising a solvent or in a fuel oil. However, Weers teaches that fuel oil additives comprising fatty acids are prepared in aromatic and paraffinic solvents (see abstract; col. 5, lines 12-19).

It would have been obvious to one ordinary skill in the art to prepare the fatty acid mixture in a solvent because it allows for ease of handling and dissolution of the additive in the fuel oil.

With respect to the method claims, the claims are obvious over those of the patent because patentee teaches that the additive is for low sulfur fuel oils and Applicant's only method step recites adding the additive of his invention to low sulfur fuel oils.

4. Claim 7 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/938,495. Although the conflicting claims are not identical, they are not patentably distinct from each other because the additive claim of the present invention recites a solvent. However, the claims of the copending application are open to the inclusion of a solvent.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 is rejected because it is not clear if the carboxylic acid is mono- or di-.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 7, 10-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11001692.

JP teaches a low sulfur middle distillate fuel oil comprising less than 0.2 wt % sulfur. The fuel oil contains from 0.001-0.5 wt % of a C_8-C_{30} fatty acid mixture which contains unsaturated fatty acids having a single double bond and a fatty acid containing two double bonds and other additives such as flow improvers (see CAPLUS abstract in its entirety). The acids are used in a ratio of 1:3 to 15:1 (see machine translation paragraphs 13-16). At paragraphs 16 and 17, JP teaches adding saturated fatty acids and resin acids (to the mixture (see machine translation). JP teaches in the machine translation the use of nitrogen-containing compounds (amides/salts) that function as cold temperature fluidity improvers (paraffin dispersants) at a ratio of 1:10-5:1(see paragraphs 0019-0020). The machine translation also teaches that the fuel additive may be prepared as a concentrate containing 20 to 80% by weight solvent (see paragraph 24).

JP teaches the limitations of the claims other than the iodine number of the fatty acid mixture. However, since the fuel additive of JP comprises a major amount of unsaturated acids it would be reasonable to expect that the iodine number of the fatty acid mixture would be at least 40 g of I/100g, absent evidence to the contrary.

9. Claims 7, 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 0015739 in view of Weers.

WO teaches a low sulfur diesel fuel composition wherein the sulfur content of the fuel is 0.05 % by wt or less (see abstract; page 15, lines 17-26). The fuel composition comprises (A) at least one dicarboxylic acid having 8-500 carbon atoms, (B) at least one amine and (C) at least one monocarboxylic acid of 8-28 carbon atoms (see abstract). WO teaches that the monocarboxylic acid may be a mixture of two or more of fatty acids and is present at 0.5-99 % of the composition (see page 13, lines 1-17). WO teaches that the additive composition may be a mixture of A, B and C, a reaction product of A, B and C or mixtures of reaction products and unreacted components. This teaching suggests the claimed components because a combination of the latter products of WO encompasses the polar-nitrogen compound and the mono and di-carboxylic acids of the present claims. Given the breadth of the claimed proportions, it would be reasonable to expect that the proportions of the recited claims are within or overlap those of WO.

With respect to the Iodine number it would have been obvious to one of ordinary skill in the art to optimize the amount of the acids in order to obtain the claimed Iodine number because WO is directed to the same endeavor, i.e., improve lubricity of low sulfur fuel oils.

WO fails to teach the use of a solvent. However, Weers teaches this difference in a similar fuel composition. Weers teaches that fuel oil additives comprising fatty acids are prepared in aromatic and paraffinic solvents (see abstract; col. 5, lines 12-19).

It would have been obvious to one ordinary skill in the art to prepare the fatty acid mixture in a solvent because it allows for ease of handling and dissolution of the additive in the fuel oil.

10. Claims 10, 11, 13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 0015739.

WO has been discussed above. WO teaches the limitations of the claims other than the differences that are discussed below.

WO fails to teach the claimed proportions of the acids. However, WO teaches that the additive composition may be a mixture of A, B and C, a reaction product of A, B and C or mixtures of reaction products and unreacted components. This teaching suggests the claimed components because a combination of the latter products of WO encompasses the polar-nitrogen compound and the mono and di-carboxylic acids of the present claims. Given the breadth of the claimed proportions, it would be reasonable to expect that the proportions of the recited claims are within or overlap those of WO.

With respect to the Iodine number it would have been obvious to one of ordinary skill in the art to optimize the amount of the acids in order to obtain the claimed Iodine number because WO is directed to the same endeavor, i.e., improve lubricity of low sulfur fuel oils.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 0138461.

WO teaches a fuel oil composition comprising a fatty acid mixture and a polar nitrogen-containing flow improver (wax inhibitor)(see claims 1-2 and 8). The flow improver is present in the composition from 0.01-10 wt% (see claim 3). Such polar nitrogen compounds include amine salts (see page 6, lines 21-31; page 7, lines 18-20). Claim 22 contains up to 80 % saturated fatty acids and claim 23 contains 95 % unsaturated fatty acids, 2 % saturated fatty acids and <2 % rosin acids (resin acids). WO also teaches that the compositions may contain organic solvents (see page 12, line 19 and Examples).

With respect to the Iodine number it would have been obvious to one of ordinary skill in the art to optimize the amount of the acids in order to obtain the claimed Iodine number because WO is directed to the same endeavor, i.e., improve lubricity of low sulfur fuel oils.

12. Claims 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 0138461 in view of WO 0015739 and Weers (US 6,129,772)

WO teaches a fuel oil composition comprising a fatty acid mixture and a polar nitrogen-containing flow improver (wax inhibitor)(see claims 1-2 and 8). The flow improver is present in the composition from 0.01-10 wt% (see claim 3). Such polar nitrogen compounds include amine salts (see page 6, lines 21-31; page 7, lines 18-20). Claim 22 contains up to 80 % saturated fatty acids and claim 23 contains 95 % unsaturated fatty acids, 2 % saturated fatty acids and <2 % rosin acids (resin acids). WO also

teaches that the compositions may contain organic solvents (see page 12, line 19 and Examples).

With respect to the Iodine number it would have been obvious to one of ordinary skill in the art to optimize the amount of the acids in order to obtain the claimed Iodine number because WO is directed to the same endeavor, i.e., improve lubricity of low sulfur fuel oils.

13.

WO 0138461 fails to teach sulfur content of the fuel oil. However, WO 0015739 teaches a low sulfur diesel fuel composition wherein the sulfur content of the fuel is 0.05 % by wt or less (see abstract; page 15, lines 17-26).

It would have been obvious to one of ordinary skill in the art to use a low sulfur fuel because WO 0015739 teaches that federal and international regulations mandate the use of low sulfur fuel in order to reduce emissions.

14. WO 0138461 fails to teach claimed solvents. However, Weers teaches fuel oil additives comprising fatty acids are prepared in aromatic and paraffinic solvents (see abstract; col. 5, lines 12-19).

It would have been obvious to one of ordinary skill in the art to have selected the claimed solvents because Weers teaches that these are conventional solvents that are used to prepare fatty acid concentrates for fuel oil compositions.

15. The relevant prior art references and/or their equivalents that were cited on the foreign search report have been considered.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cephia D. Toomer
Primary Examiner
Art Unit 1714

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